

ABSTRACT

An inspection system to inspect structures on a substrate. A generator directs a primary beam at the substrate along a selectable angle, thereby producing a secondary beam having properties that are characteristic of the structures on the substrate. At least one of the substrate and the primary beam are scanned relative to the other at a selectable speed. A sensor receives the secondary beam and provides analog signals having properties that are characteristic of the secondary beam. An analog to digital converter receives the analog signals and provides digital signals having properties that are characteristic of the analog signals. A controller receives the digital signals and determines the properties of the structures on the substrate based at least in part on the properties of the digital signals.

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